enough to cover almoſt the whole Heavens, than which a more tremendous Sight cannot be conceived; and at its fartheſt Diſtance the Sun muſt be ſo diminiſhed as to appear but a little brighter and larger than the Star called *Sirius*, or the Dog-ſtar, does to us. For Aſtronomers ſuppoſe that Comet, at its fartheſt Diſtance from the Sun, to go off three or four Times the Diſtance of *Saturn*, and that its Period or Time of going its Courſe is 575 Years. That of another, they ſuppoſe to be 125 Years; and of another, which according to them, may be expected to appear in 1758, to be 75 Years. Beſides theſe, Aſtronomers think they have Reaſon to reckon eighteen others belonging to our Syſtem; but they do not pretend to put the Theory of Comets upon the ſame Footing as that of the Planets. The Comets differ very much in Appearance one from another, and all from the Planets, in that they all look duſky and gloomy, as if ſurrounded with a very groſs Atmoſphere, and project behind them, that is, toward the Part of the Heavens that is oppoſite to the Sun, a Stream of Miſt or Vapour, commonly called their Tails. It is moſt likely that the Tail of a Comet is only its Atmoſphere rarified to a great Degree by the extreme Heat of the Sun, on its Approach to him; For it is always obſerved, that the Tail becomes longer as the Comet approaches nearer to the Sun, and contrariwiſe. The Tail of the Comet, which appeared in 1680, extended itſelf over no leſs than ſixty Degrees, or a third Part of our whole Heavens from Eaſt to Weſt. To make ſuch an Appearance at the Diſtance that Comet was ſuppoſed to be at, the Tail muſt have been many Millions of Miles in Length. Whether theſe tremendous Bodies, which the Almighty has ſet a traverſing in this fearful Manner through the vaſt Expanſe, be Worlds formerly inhabited, and now reduced to a Chaos, with their wicked Inhabitants left in them in a State of Puniſhment; or whether they are future Worlds, not yet reduced to an habitable State; or whether they are vaſt Maſſes of combuſtible Matter, made to paſs periodically round the Sun, and after a Number of Revolutions, approaching every Time nearer and nearer, as it is ſuppoſed ſome of them do, are at laſt to drop into the Sun, as an Addition of Fewel to make up for his immenſe and continual Waſte of Light and Heat; or whether they are intended to impregnate from Time to Time the Regions of the Planets with a Quantity of ſalutary Particles to make up for the Decay or Waſte of thoſe neceſſary Principles; or whether they are form'd to bring about Deluges or Conflagrations, and ſo prove the Inſtruments of the Divine Vengeance upon his offending Creatures; whether any of theſe, I ſay, be the Deſign for which infinite Wiſdom formed theſe amazing Bodies, and let them looſe to wander through the Sky, is above human Underſtanding to determine. It is plain, that the Shock of a Body, of the Size of a Comet, againſt the Earth, or any of the Planets, moving with the Rapidity they have in their Approach to, or Receſs from the Sun, eſpecially if the Motion of both the Comet and Planet ſhould happen to be contrary, muſt be attended with Conſequences frightful beyond all Imagination. But it is highly probable, that even the near Approach of a Comet to the Earth would cauſe terrible Effects. Our Comfort is, that the whole Machine of Nature is in the Hands of one who knows how to conduct and manage all its vaſt and unwieldy Parts, and that the Motions of thoſe dreadful Bodies, though to

to ſuch puny Creatures as we are, they ſeem the more terrible the more we conſider them, are entirely under his Rule and Guidance, and that no one Part of Nature can break looſe upon, or bear down another, without his Permiſſion.

Some Comets have, by the Calculations of the beſt Aſtronomers, been ſuppoſed, at their greateſt Diſtance from the Sun, to recede no leſs than four Times as far from him as the Diſtance between the Sun and *Saturn*. Yet it is highly probable that Comets, even at that amazing Diſtance, do not approach ſo near any of the fixed Stars as to be affected by their Attraction, but return periodically, and revolve round the Sun. Here is therefore, according to Probability, a Space, of which the Sun is the Centre, and in which the Planets and Comets move round him, conſiſting of a Number of Miles not under 6 or 7000 Millions, and no one knows how much more, yet quite clear of the Attraction of all the fixed Stars around, which in all Probability reaches as far as that of the Sun, or about 3 or 4000 Millions of Miles every Way round each Star. Whence we may ſuppoſe, no two fixed Stars in the Heavens to be nearer to one another than 6000 Millions of Miles, however near they ſeem at this Diſtance. But by the more accurate and improved Obſervations of the Moderns it is found, contrary to the Suppoſitions of former Aſtronomers, that the fixed Stars yield no ſenſible Parallax, and that, though we are no leſs than a whole Breadth of the Earth's annual Orbit, or 160 Millions of Miles nearer ſome of them at one Time of the Year, than at the oppoſite, their Appearance, Magnitudes and Diſtances from one another, are always the ſame. This ſhews that the above 160 Millions of Miles bears no more Proportion to the Diſtance of the fixed Stars, than one Pace does to ten Miles. Upon this Theory they may be ſafely placed at no leſs than 50,000 Times the Breadth of the Earth's annual Orbit from us. Their Diſtance then in Figures will be 1,600,000,000,000, which makes one Billion, or one thouſand Times one thouſand Millions, and ſix hundred thouſand Millions of Miles. Farther, if we conſider the immenſe Diſtance of the fixed Stars, and conſequently, the Magnitude they muſt be of, to be viſible by us at this Diſtance, we can hardly ſuppoſe the Divine Wiſdom, which does nothing in vain, has created ſuch Numbers of luminous Bodies, of Magnitudes inconceivable, and at Diſtances almoſt infinite, for no other Purpoſe but to afford us a little glimmering Light in the Night, which could have been done more effectually, and with infinitely leſs Exertion of creating Power, by one ſingle additional Moon. For what Purpoſe then ſhall we ſuppoſe ſuch a Profuſion of ſtupendous Luminaries created? In all Probability, or rather without all Doubt, to enlighten innumerable Syſtems of Worlds, which revolve round them, in the ſame Manner as our Earth and the other Planets of our Syſtem revolve round the Sun. If therefore every one of the fixed Stars is a Sun, with its Syſtem of Planets revolving round it, it is highly probable, each of thoſe Syſtems takes up a Space nearly equal to what has been above ſhewn ours does; for why ſhould we ſuppoſe a greater Extent of Space given to our Syſtem than to any other, that is, a greater than is neceſſary? Now, as to the Number of theſe glorious Luminaries, the lateſt Catalogues of the fixed Stars amount to about 3000 on all Sides of the Heavens, moſt of which are viſible to the naked Eye. But, if we have Recourſe to Teleſcopes,

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